

Title (en)

MICROFLUIDIC DEVICE FOR SEPARATING LIQUID FROM THE SAME LIQUID CONTAINING DEFORMABLE PARTICLES WITHOUT EXTERNAL SOURCES OF ENERGY

Title (de)

MIKROFLUIDISCHE VORRICHTUNG ZUM ABSCHEIDEN VON FLÜSSIGKEIT AUS DIESER FLÜSSIGKEIT MIT VERFORMBAREN PARTIKELN OHNE EXTERNE ENERGIEQUELLEN

Title (fr)

DISPOSITIF MICROFLUIDIQUE POUR LA SÉPARATION DE LIQUIDE DU MÊME LIQUIDE CONTENANT DES PARTICULES DÉFORMABLES SANS SOURCES D'ÉNERGIE EXTERNES

Publication

**EP 3070471 A4 20170712 (EN)**

Application

**EP 14861638 A 20141111**

Priority

- ES 201331666 A 20131115
- ES 2014070833 W 20141111

Abstract (en)

[origin: EP3070471A1] The invention relates to a microfluidic device for separating liquid from the same liquid containing deformable particles without external sources of energy. The device comprises: at least one transport channel (1) using various fluid-hydrodynamic principles in order to increase the amount of separated/obtained fluid; and at least one separating area (2) which diverts part of the fluid circulating through the transport channel towards at least one collection channel (3) or reaction chamber. The separating area (2) can include at least one array of pillars, the configuration of which maximizes the amount of fluid extracted at once. The depth and width of the collection channel (3) are adaptable according to the requirements of the test to be implemented. The invention especially provides a filter for separating plasma from a drop of blood in a highly efficient manner, which can be used in point-of-care testing systems.

IPC 8 full level

**G01N 33/49** (2006.01); **B01L 3/00** (2006.01)

CPC (source: EP ES US)

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**G01N 27/44791** (2013.01 - US); **G01N 33/49** (2013.01 - ES); **G01N 33/491** (2013.01 - EP US); **B01D 17/00** (2013.01 - ES);  
**B01L 2200/0652** (2013.01 - EP US); **B01L 2200/0663** (2013.01 - EP US); **B01L 2300/0816** (2013.01 - EP US); **B01L 2300/0851** (2013.01 - EP US);  
**B01L 2300/165** (2013.01 - EP US); **B01L 2400/086** (2013.01 - EP US); **B01L 2400/088** (2013.01 - EP US)

Citation (search report)

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- [A] MAIWENN KERSAUDY-KERHOAS ET AL: "Micro-scale blood plasma separation: from acoustophoresis to egg-beaters", LAB ON A CHIP, vol. 13, no. 17, 1 January 2013 (2013-01-01), pages 3323, XP055325352, ISSN: 1473-0197, DOI: 10.1039/c3lc50432h
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- See references of WO 2015071515A1

Designated contracting state (EPC)

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US 2016258928 A1 20160908; WO 2015071515 A1 20150521

DOCDB simple family (application)

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